

# TEMPLATE EXPLANATION

This template must be used by the TNSP to report on the implementation of their priority projects for the previous calendar year. This report template is to be submitted by the TNSP to the AER as part of the annual STPIS compliance review.

After the initial report template is filled out and provided by TNSPs in the first STPIS compliance review for the regulatory control period for which the NCIPAP applies, the TNSP will update the report template at the end of each calendar year and provide a updated copy to the AER as part of the annual STPIS compliance review.

The summary worksheet provides an overview of the priority projects and whether, at the time of submitting this NCIPAP reporting template, the TNSP has taken steps to implement any of its priority projects and/or completed any of its priority projects.

One priority project worksheet should be filled out for each priority project in the TNSP's NCIPAP. These worksheets will be used by the TNSP to provide updates on the status of the implementation of the priority projects. If the TNSP successfully implements a priority project, takes steps towards the delivery on a priority project or encounters delays in a priority project in the previous calendar year, the priority project worksheet should be updated to reflect this and the summary should also be updated.

This template also provides worksheet templates for TNSPs which want to, as part of the STPIS compliance review, remove priority projects from their NCIPAP and propose a replacement priority project to be added to the NCIPAP.

Priority project name and ranking	Summary of project	Have steps been taken in the previous calendar year to implement the priority project?	Priority project completion summary		
			Has the priority project been delivered?	Has the priority project improvement target been achieved?	If the priority project has been delivered, has AEMO been notified of any change in the limit?
	Explanatory statement: include a short description of the priority project	Explanatory statement: indicate 'yes' or 'no' as to whether any steps have been taken by the TNSP to implement the priority project in the previous calendar year. If steps have been taken by the TNSP to implement the priority project in the previous calendar year, please update the worksheet for the priority project.	Explanatory statement: indicate 'yes' or 'no' as to whether the priority project has been delivered.	Explanatory statement: indicate 'yes' or 'no' as to whether the improvement target has been achieved following the completion of the priority project. If the improvement target has not been achieved despite the completion of the priority project, please provide further information in row 15 of the relevant priority project worksheet.	Explanatory statement: indicate if AEMO has been made aware, for operational purposes, of the change in the limit.
Upper South East uprating. Rank 1	Increase the conductor clearances of the relevant lines to increase the operating temperature of these lines from 80°C to Yes, preliminary phase work in progress allow 100°C ratings.	No	No, priority project not yet delivered	No, priority project not yet delivered	No, priority project not yet delivered
Riverland uprating. Rank 2	Increase the conductor clearances of the relevant lines to increase the operating temperature of these lines from 80°C to Yes, preliminary phase work in progress allow 100°C ratings.	No	No, priority project not yet delivered	No, priority project not yet delivered	No, priority project not yet delivered
Robertstown - Waterloo East uprating. Rank 3	Increase the conductor clearances of the relevant lines to increase the operating temperature of these lines from 80°C to No allow 100°C ratings.	No	No, priority project not yet delivered	No, priority project not yet delivered	No, priority project not yet delivered
Load model enhancements. Rank 4	Evaluation of load behaviour under disturbed system conditions. Yes	No	No, priority project not yet delivered	No, priority project not yet delivered	No, priority project not yet delivered
Distributed rooftop solar PV response to frequency disturbances. Rank 5	Examine the possible increased risk of severe frequency disturbances due to the response of distributed PV systems. Yes	No	No, priority project not yet delivered	No, priority project not yet delivered	No, priority project not yet delivered
Lower South East uprating. Rank 6	Increase the conductor clearances of all the relevant lines to increase the operating temperature of these lines from 100°C Yes, preliminary phase work in progress to allow 120°C ratings.	No	No, priority project not yet delivered	No, priority project not yet delivered	No, priority project not yet delivered

NOTE: summary page to be automated to link to priority projects sheets

<b>Priority project name and ranking</b>	<b>Upper South East uprating. Rank 1</b>		
<b>Priority project description</b>	Increase the conductor clearances of the relevant lines to increase the operating temperature of these lines from 80°C to allow 100°C ratings.		
<b>Co-ordinated project</b>	No		
<b>Has the priority project been commenced ?</b>	Yes, preliminary phase work in progress		
<b>Date of priority project completion</b>	1/12/2016		
<b>Limit(s) addressed by priority project</b>	Thermal design capability of the lines.		
<b>Initial limit value(s)</b>	Tailem Bend - Tungkillo 275 kV ratings: Summer 451 MVA, Winter 564 MVA Tailem Bend - Mobilong 132 kV ratings: Summer 141 MVA, Winter 173 MVA		
<b>Target limit value(s)</b>	Tailem Bend - Tungkillo 275 kV ratings: Summer 597 MVA, Winter 682 MVA Tailem Bend - Mobilong 132 kV ratings: Summer 183 MVA, Winter 207 MVA		
<b>Completion limit values</b>	[once the priority project has been completed, insert the new value(s) of the limit(s) which the priority project has sought to address and indicate whether the improvement target has been achieved following the implementation of the priority project]		
<b>Estimated capital cost of priority project</b>	\$2.30 million		
<b>Estimated operating cost of priority project</b>	\$0		
<b>Capital expenditure to date</b>	ElectraNet project planning, management and engineering: \$43,732 Consultant costs - line rating information: \$30,791 Contractor costs - line joint testing: \$131,545 TOTAL capital expenditure to date: \$206,068		
<b>Operating expenditure to date</b>	\$0		
<b>Priority project key milestones and dates</b>	Estimated milestone dates:  <ul style="list-style-type: none"> <li>● Final internal approval to undertake project 21/4/2016</li> <li>● Obtaining planning/environmental approvals n/a</li> <li>● Procurement of insulators, line hardware and steel 30/4/2016</li> <li>● Project commencement date 22/4/2016</li> <li>● Key project delivery dates:               <ul style="list-style-type: none"> <li>– Detailed design 11/3/2016</li> <li>– Energisation 30/6/2016</li> </ul> </li> <li>● Project completion date 1/12/2016 (including as-built survey and rating assessment, defect rectification, post implementation review and close-out)</li> </ul>		
<b>Priority project update/comments</b>	Detailed design to address low spans is currently in progress. Mid-span and dead end joint testing is required to be undertaken prior to the line uprate to ensure that the conductor is capable of withstanding the higher rating.  The transmission lines are scheduled to be energised at their increased ratings by the target completion date of 30 June 2016. An assessment of achievement against the improved rating target will then be undertaken.		

<b>Priority project name and ranking</b>	<b>Riverland uprating. Rank 2</b>	
<b>Priority project description</b>	Increase the conductor clearances of the relevant lines to increase the operating temperature of these lines from 80°C to allow 100°C ratings.	
<b>Co-ordinated project</b>	No	
<b>Has the priority project been commenced ?</b>	Yes, preliminary phase work in progress	
<b>Date of priority project completion</b>	3/11/2017	
<b>Limit(s) addressed by priority project</b>	Thermal design capability of the lines.	
<b>Initial limit value(s)</b>	Robertstown - MWP3 132 kV ratings: Summer 141 MVA, Winter 173 MVA MWP3 - MWP2 132 kV ratings: Summer 141 MVA, Winter 173 MVA MWP2 - MWP1 132 kV ratings: Summer 141 MVA, Winter 173 MVA MWP1 - North West Bend 132 kV ratings: Summer 141 MVA, Winter 173 MVA North West Bend - Monash 132 kV #2 ratings: Summer 110 MVA, Winter 126 MVA Robertstown - MWP3 132 kV ratings: Summer 183 MVA, Winter 205 MVA MWP3 - MWP2 132 kV ratings: Summer 183 MVA, Winter 205 MVA MWP2 - MWP1 132 kV ratings: Summer 183 MVA, Winter 205 MVA MWP1 - North West Bend 132 kV ratings: Summer 183 MVA, Winter 205 MVA North West Bend - Monash 132 kV #2 ratings: Summer 141 MVA, Winter 158 MVA	
<b>Target limit value(s)</b>		
<b>Completion limit values</b>	[once the priority project has been completed, insert the new value(s) of the limit(s) which the priority project has sought to address and indicate whether the improvement target has been achieved following the implementation of the priority project]	
<b>Estimated capital cost of priority project</b>	\$4.43 million	
<b>Estimated operating cost of priority project</b>	\$0	
<b>Capital expenditure to date</b>	ElectraNet project planning, management and engineering: \$10,687	
<b>Operating expenditure to date</b>	\$0 Estimated milestone dates: <ul style="list-style-type: none"> <li>● Final internal approval to undertake project 16/9/2016</li> <li>● Obtaining planning/environmental approvals n/a</li> <li>● Procurement of insulators, line hardware and steel 31/12/2016</li> <li>● Project commencement date 17/9/2016</li> <li>● Key project delivery dates:               <ul style="list-style-type: none"> <li>– Detailed design 31/10/2016</li> <li>– Energisation 30/6/2017</li> </ul> </li> <li>● Project completion date 3/11/2017 (including as-built survey and rating assessment, defect rectification, post implementation review and close-out)</li> </ul>	
<b>Priority project key milestones and dates</b>		
<b>Priority project update/comments</b>	This priority project commenced preliminary phase work in September 2015. It is planned to commence construction phase work in September 2016 and for transmission lines to be to be energised at their increased ratings by the target completion date of 30 June 2017. An assessment of achievement against the improved rating target will then be undertaken.	

<b>Priority project name and ranking</b>	<b>Robertstown - Waterloo East uprating. Rank 3</b>	
<b>Priority project description</b>	Increase the conductor clearances of the relevant lines to increase the operating temperature of these lines from 80°C to allow 100°C ratings.	
<b>Co-ordinated project</b>	No	
<b>Has the priority project been commenced ?</b>	No	
<b>Date of priority project completion</b>	29/06/2018	
<b>Limit(s) addressed by priority project</b>	Thermal design capability of the lines due to conductor clearance.	
<b>Initial limit value(s)</b>	Robertstown - MWP4 132 kV ratings: Summer 141 MVA, Winter 173 MVA Waterloo East - MWP4 132 kV ratings: Summer 141 MVA, Winter 173 MVA	
<b>Target limit value(s)</b>	Robertstown - MWP4 132 kV ratings: Summer 183 MVA, Winter 205 MVA Waterloo East - MWP4 132 kV ratings: Summer 183 MVA, Winter 205 MVA	
<b>Completion limit values</b>	[once the priority project has been completed, insert the new value(s) of the limit(s) which the priority project has sought to address and indicate whether the improvement target has been achieved following the implementation of the priority project]	
<b>Estimated capital cost of priority project</b>	\$1.33 million	
<b>Estimated operating cost of priority project</b>	\$0	
<b>Capital expenditure to date</b>	\$0	
<b>Operating expenditure to date</b>	\$0	
<b>Priority project key milestones and dates</b>	Estimated milestone dates:	
	● Final internal approval to undertake project	22/6/2017
	● Obtaining planning/environmental approvals	tbd
	● Procurement of equipment	tbd
	● Project commencement date	23/6/2017
	● Key project delivery dates:	
	– Detailed project implementation steps	tbd
	– Energisation	5/4/2018
	● Project completion date	29/6/2018
<b>Priority project update/comments</b>	This priority project is planned to commence preliminary phase work in July 2016, commence construction phase work in June 2017 and be completed and achieve the improved rating target by June 2018.	

<b>Priority project name and ranking</b>	<b>Load model enhancements. Rank 4</b>	
<b>Priority project description</b>	Evaluation of load behaviour under disturbed system conditions.	
<b>Co-ordinated project</b>	No	
<b>Has the priority project been commenced ?</b>	Yes	
<b>Date of priority project completion</b>	30/06/2017	
<b>Limit(s) addressed by priority project</b>	Evaluation of load behaviour under disturbed system conditions will enable the refinement of load modelling in power system studies.	
<b>Initial limit value(s)</b>	N/A	
<b>Target limit value(s)</b>	Progress reports and a final assessment report including model validations against system events to be compiled.	
<b>Completion limit values</b>	[once the priority project has been completed, insert the new value(s) of the limit(s) which the priority project has sought to address and indicate whether the improvement target has been achieved following the implementation of the priority project]	
<b>Estimated capital cost of priority project</b>	\$37,772	
<b>Estimated operating cost of priority project</b>	\$66,850	
<b>Capital expenditure to date</b>	Portable measuring equipment: \$40,481	
<b>Operating expenditure to date</b>	ElectraNet project planning, model development and analysis: \$25,401	
<b>Priority project key milestones and dates</b>	Estimated milestone dates:	
	<ul style="list-style-type: none"> <li>● Final internal approval to undertake project 2/11/2015</li> <li>● Obtaining planning/environmental approvals n/a</li> <li>● Procurement of portable measuring equipment 14/12/2015</li> <li>● Project commencement date 31/7/2015</li> <li>● Key project delivery dates: <ul style="list-style-type: none"> <li>– Metering deployment 1/9/2015 – 28/2/2016</li> <li>– Continuous load data/event monitoring 1/9/2015 – 31/3/2017</li> <li>– Commence Final Data Assessment 31/3/2017</li> <li>– Analysis and reporting 30/6/2017</li> <li>– Refined load model 30/6/2017</li> </ul> </li> <li>● Project completion date 30/6/2017</li> </ul>	
<b>Priority project update/comments</b>	Procurement of both low voltage and medium voltage substation measurement equipment has been completed as at the end of 2015. The equipment is being progressively rolled out across designated measurement sites. In parallel, the server and data storage infrastructure has been implemented. Data is currently being collected from equipment already deployed in the field and analysed. The project is on schedule to deliver a report on the analysis and findings, and refinements to the ElectraNet load model by 30 June 2017.	

<b>Priority project name and ranking</b>	<b>Distributed rooftop solar PV response to frequency disturbances. Rank 5</b>	
<b>Priority project description</b>	Examine the possible increased risk of severe frequency disturbances due to the response of distributed PV systems.	
<b>Co-ordinated project</b>	No	
<b>Has the priority project been commenced ?</b>	Yes	
<b>Date of priority project completion</b>	30/06/2016	
<b>Limit(s) addressed by priority project</b>	Examining the possible increased risk of severe frequency disturbances due to the response of distributed PV systems will allow for greater insights into the likely operation of PV systems under disturbed conditions.	
<b>Initial limit value(s)</b>	N/A	
<b>Target limit value(s)</b>	Progress reports and a final assessment report including model validations against system events to be compiled.	
<b>Completion limit values</b>	[once the priority project has been completed, insert the new value(s) of the limit(s) which the priority project has sought to address and indicate whether the improvement target has been achieved following the implementation of the priority project]	
<b>Estimated capital cost of priority project</b>	\$0	
<b>Estimated operating cost of priority project</b>	\$53,725	
<b>Capital expenditure to date</b>	\$0	
<b>Operating expenditure to date</b>	ElectraNet project planning, model development and analysis: \$29,441	
<b>Priority project key milestones and dates</b>	Estimated milestone dates:	
	● Final internal approval to undertake project	2/11/2015
	● Obtaining planning/environmental approvals	n/a
	● Procurement of equipment (Priority project 4)	14/12/2015
	● Project commencement date	31/7/2015
	● Key project delivery dates:	
	– Metering deployment (Priority project 4)	1/9/2015 – 28/2/2016
	– SA real-time PV generation estimator tool development	1/9/2015 – 31/12/2015
	– Continuous PV data/event monitoring	1/9/2015 – 31/3/2016
	– Analysis and reporting	30/6/2016
	– Refined load model	30/6/2016
	● Project completion date	30/6/2016
Long-term trend monitoring is planned to continue during the 2016/17 financial year.		
<b>Priority project update/comments</b>	Procurement of both low voltage and medium voltage substation measurement equipment has been completed as at the end of 2015. The equipment is being progressively rolled out across designated measurement sites. In parallel, the server and data storage infrastructure has been implemented. Data is currently being collected from equipment already deployed in the field and assumptions used for the modelling of distributed solar PV microgeneration is being re-assessed in the light of learnings from current field data measurements. Concurrently, a real-time SA distributed generation estimation tool has been developed. The project is on schedule to deliver a report on the analysis and findings, and refinements incorporated into ElectraNet's SA distributed solar PV model by 30 June 2016.	

<b>Priority project name and ranking</b>	<b>Lower South East uprating. Rank 6</b>		
<b>Priority project description</b>	Increase the conductor clearances of all the relevant lines to increase the operating temperature of these lines from 100°C to allow 120°C ratings.		
<b>Co-ordinated project</b>	No		
<b>Has the priority project been commenced ?</b>	Yes, preliminary phase work in progress		
<b>Date of priority project completion</b>	1/09/2016		
<b>Limit(s) addressed by priority project</b>	Design capability of the lines due to conductor clearance.		
<b>Initial limit value(s)</b>	South East - Tailem Bend 275 kV #1 ratings: Summer 591 MVA, Winter 675 MVA South East - Tailem Bend 275 kV #2 ratings: Summer 591 MVA, Winter 675 MVA		
<b>Target limit value(s)</b>	South East - Tailem Bend 275 kV #1 ratings: Summer 700 MVA, Winter 768 MVA South East - Tailem Bend 275 kV #2 ratings: Summer 700 MVA, Winter 768 MVA		
<b>Completion limit values</b>	[once the priority project has been completed, insert the new value(s) of the limit(s) which the priority project has sought to address and indicate whether the improvement target has been achieved following the implementation of the priority project]		
<b>Estimated capital cost of priority project</b>	\$1.83 million		
<b>Estimated operating cost of priority project</b>	\$0		
<b>Capital expenditure to date</b>	ElectraNet project planning, management and engineering: \$48,372 Contractor costs - line joint testing: \$173,665 TOTAL capital expenditure to date: \$222,037		
<b>Operating expenditure to date</b>	\$0		
<b>Priority project key milestones and dates</b>	Estimated milestone dates:  <ul style="list-style-type: none"> <li>● Final internal approval to undertake project 22/2/2016</li> <li>● Obtaining planning/environmental approvals n/a</li> <li>● Procurement of insulators, line hardware and steel 29/2/2016</li> <li>● Project commencement date 23/2/2016</li> <li>● Key project delivery dates:             <ul style="list-style-type: none"> <li>– Detailed design 21/1/2016</li> <li>– Energisation 22/4/2016</li> </ul> </li> <li>● Project completion date 1/9/2016 (including as-built survey and rating assessment, defect rectification, post implementation review and close-out)</li> </ul>		
<b>Priority project update/comments</b>	Detailed design to address low spans is nearing completion. Mid-span and dead end joint testing is required to be undertaken prior to the line uprate to ensure that the conductor is capable of withstanding the higher rating.  The transmission lines are scheduled to be energised at their increased ratings by 22 April 2016, ahead of the target completion date of 30 June 2016. An assessment of achievement against the improved rating target will then be undertaken.		



Priority project name and ranking	[insert name and ranking]
Priority project description	[insert priority project description – can be taken from the NCIPAP]
Co-ordinated project	[indicate whether the priority project is a co-ordinated project.]
Has the priority project been commenced ?	[indicate the current status of the priority project i.e has it been commenced (if so, please include a brief summary of where the project is at), completed or delayed/deferred]
Date of priority project completion	[insert date of priority project completion]
	[insert description of the limit(s) which the priority project seeks to address.
Limit(s) addressed by priority project	For priority projects which are co-ordinated projects, please include a description of all relevant limit(s), including the limit(s) located on the other TNSP's network. For the limit(s), please indicate in which TNSP network they are located]
Initial limit value(s)	[insert initial limit value(s) from NCIPAP. For priority projects which are co-ordinated projects, please include all relevant limit value(s), including the limit value(s) of any limit(s) on the other TNSP's network]
Target limit value(s)	[insert priority project improvement target]
Completion limit values	[once the priority project has been completed, insert the new value(s) of the limit(s) which the priority project has sought to address and indicate whether the improvement target has been achieved following the implementation of the priority project]
Estimated capital cost of priority project	[insert cost estimate from NCIPAP]
Estimated operating cost of priority project	[insert estimate from NCIPAP]
Capital expenditure to date	[insert actual capital expenditure spent to date on the implementation/delivery of the priority project. Equipment costs (i.e. isolators, interplant connections, protection relays) should be broken down and individually itemised. For co-ordinated priority projects, only include the capital expenditure of the reporting TNSP]
Operating expenditure to date	[insert actual operating expenditure spent to date. For co-ordinated priority projects, only include the operating expenditure of the reporting TNSP]
Priority project key milestones and dates	<p>[include in this section the key project milestones and the estimated dates in which those milestones will be completed. If applicable the following project milestones should be included:</p> <ul style="list-style-type: none"><li>● Final internal approval to undertake project</li><li>● Obtaining planning/environmental approvals</li><li>● Procurement of equipment</li><li>● Project commencement date – this is the date in which the project implementation will commence i.e date when capital works commence, commencement of study/review.</li><li>● Key project delivery dates – include key project implementation steps and estimated dates</li><li>● Project completion date</li></ul> <p>For co-ordinated priority projects, include the key project milestones and dates of both TNSPs and indicate which TNSP is responsible for the milestone.</p> <p>If there is a delay or complication in the implementation of the priority project since the last NCIPAP annual report to the AER which changes the estimated dates for the key project milestones listed, please update the revised estimate date for the relevant key project milestone and indicate that the date for the key project milestone has been revised.</p> <p>Also indicate separately whether any key milestones have been completed and the date in which they have been completed – do not remove any estimated dates]</p>
Priority project update/comments	<p>[include a written summary of the current status of the priority project against the key milestones and where it is up to. If there are any delays or complications with the project have arisen, include a summary here. For co-ordinated priority projects, the reporting TNSP should also include any delays or complications which they are aware the other TNSP is experiencing in the implementation of the project.</p> <p>In the final update on the NCIPAP approved projects in the regulatory control period, the AER may have to make a determination in accordance with clause 5.3(b) of the STPIS on whether to reduce the financial incentive payment if the priority project does not achieve its priority project improvement target. If this may be applicable for this priority project, please include the following information (where relevant):</p> <ul style="list-style-type: none"><li>● If the priority project has not been completed at the end of the regulatory control period – please include details why this has been the case and when the priority project is expected to be completed. Take into account the factors listed in 5.3(e) of the STPIS.</li><li>● If the priority project has been completed at the end of the regulatory control period and the priority project improvement target has not been achieved – please include details of why this is the case. Take into account the factors listed in 5.3(e) of the STPIS.</li><li>● If the priority project has been completed and the target has been achieved, please confirm whether the improvement target has been achieved because of the implementation of the priority project or it is due to other network augmentation and/or replacement of existing network assets (i.e. if the priority project had not been successfully implemented, would the improvement target have still been achieved?). If it is the latter, please explain why this has been done and state the capital cost of the network augmentation and/or network asset replacement. Take into account the factors listed in 5.3(e) of the STPIS.</li><li>● If the priority project has been completed and the target has been achieved but the project has exceeded the estimated capital cost, please explain why this has been the case? Take into account the factors listed in 5.3(e) of the STPIS. ]</li></ul>

**Name and ranking of priority project to be removed**

[insert name and ranking of priority project]

**Priority project description**

[insert priority project description – can be taken from the NCIPAP]

**Limit addressed by priority project**

[insert limit]

**Initial limit value**

[insert limit value from NCIPAP]

**Target limit value**

[insert priority project improvement target]

**Reasons to undertake the project**

[insert summary the reasons given in the NCIPAP for undertaking the project]

**Reason for priority project removal**

[insert the reasons why the priority project should be removed from the TNSP's NCIPAP. Take into account clause 5.4(a) of the STPIS.]

<b>Name of replacement priority project</b>	[insert project name]
<b>Replacement priority project ranking</b>	[insert proposed priority project ranking in NCIPAP. If the proposed ranking number will change whether another priority project in the NCIPAP will be in the top fifty or bottom fifty percentile of priority projects include reasons for why the replacement priority project should be ranked there]
<b>Transmission circuit/injection point(s)</b>	[insert transmission circuit/injection point limit(s) which the replacement priority project addresses]
<b>Limit and reason for the limit</b>	[insert description of the limit(s) and reason for the limit(s)]
<b>Project description</b>	[insert project description]
<b>Initial limit</b>	[insert the initial value(s) of the limit(s) and the dates at which the value(s) was recorded/measured]
<b>Improvement target</b>	[insert value(s) of the improvement target]
<b>Estimated capital cost</b>	
<b>Estimated operating cost</b>	
<b>Consultation with AEMO</b>	[include in this section whether the TNSP has consulted with AEMO in accordance with clause 5.4(e), (g). If there is any disagreement between the TNSP and AEMO in relation to the matters listed in clause 5.4(e) of the STPIS, the TNSP should outline the disagreement and the grounds for disagreement in this section]
<b>Reason to include the replacement priority project</b>	[insert reasons for including the proposed replacement priority project in the NCIPAP. Take into account the factors listed in clause 5.4(b) of the STPIS.]